

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : SC DHEC  
Address : 2600 Bull Street  
Columbia, South Carolina 29201

Report Date: August 30, 2007

Contact: Mr. Mike Gandy

Project: SC DHEC ChemNuc GW

Page 1 of 2

Client Sample ID: 082207-01  
Sample ID: 192249001  
Matrix: Ground Water  
Collect Date: 22-AUG-07 08:40  
Receive Date: 23-AUG-07  
Collector: Client

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Rad Gamma Spec Analysis

*Gammascpec, Gamma, Liquid (Standard List)*

### Rad Gas Flow Proportional Counting

*GFPC, Gross Alpha/Beta, liquid*

Alpha		4.97	+/-2.06	2.07	5.00	pCi/L		HAK	08/27/07	1328	663410	2
Beta		5.02	+/-2.91	4.53	5.00	pCi/L		B				

### Rad Liquid Scintillation Analysis

*LSC, Tritium Dist, Liquid*

Tritium	U	ND	+/-336	535	700	pCi/L		AXD2	08/27/07	1048	663391	3
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### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 901.1	
2	EPA 900.0	
3	EPA 906.0 Modified	

### Notes:

The Qualifiers in this report are defined as follows :

- \*\* Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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Client Sample ID: 082207-01  
Sample ID: 192249001

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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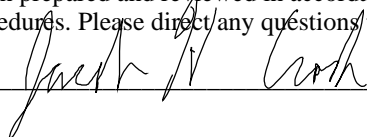
UI Gamma Spectroscopy--Uncertain identification  
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
Y QC Samples were not spiked with this compound  
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.  
h Preparation or preservation holding time was exceeded

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Jake Crook.

Reviewed by



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Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

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Client Sample ID: 082207-02  
Sample ID: 192249002  
Matrix: Ground Water  
Collect Date: 22-AUG-07 09:00  
Receive Date: 23-AUG-07  
Collector: Client

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Rad Gamma Spec Analysis</b>												
<i>Gammascpec, Gamma, Liquid (Standard List)</i>												
<b>Rad Gas Flow Proportional Counting</b>												
<i>GFPC, Gross Alpha/Beta, liquid</i>												
Alpha	U	ND	+/-2.26	4.04	5.00	pCi/L		HAK	08/27/07	1328	663410	2
Beta	U	ND	+/-2.68	4.88	5.00	pCi/L		B				
<b>Rad Liquid Scintillation Analysis</b>												
<i>LSC, Tritium Dist, Liquid</i>												
Tritium	U	ND	+/-303	526	700	pCi/L		AXD2	08/27/07	1105	663391	3
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
1,1,1-Trichloroethane	U	ND		0.300	1.00	ug/L	1	DXK1	08/28/07	0041	663867	4
1,1,2,2-Tetrachloroethane	U	ND		0.250	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND		0.250	1.00	ug/L	1					
1,1-Dichloroethane	U	ND		0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloroethane	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloropropane	U	ND		0.250	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dioxane	U	ND		20.0	200	ug/L	1					
2-Butanone	U	ND		1.25	10.0	ug/L	1					
Acrolein	U	ND		3.00	10.0	ug/L	1					
Acrylonitrile	U	ND		1.00	10.0	ug/L	1					
Benzene	U	ND		0.300	1.00	ug/L	1					
Bromodichloromethane	U	ND		0.250	1.00	ug/L	1					
Bromoform	U	ND		0.250	1.00	ug/L	1					
Bromomethane	U	ND		0.500	1.00	ug/L	1					
Carbon tetrachloride	U	ND		0.250	1.00	ug/L	1					
Chlorobenzene	U	ND		0.250	1.00	ug/L	1					
Chloroethane	U	ND		0.500	1.00	ug/L	1					
Chloroform	U	ND		0.250	1.00	ug/L	1					
Chloromethane	U	ND		0.500	1.00	ug/L	1					

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Client Sample ID: 082207-02  
Sample ID: 192249002

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
Dibromochloromethane	U	ND		0.250	1.00	ug/L	1					
Dichlorodifluoromethane	U	ND		0.500	5.00	ug/L	1					
Ethylbenzene	U	ND		0.250	1.00	ug/L	1					
Methylene chloride	J	3.65		2.00	5.00	ug/L	1					
Tetrachloroethylene	U	ND		0.250	1.00	ug/L	1					
Toluene	U	ND		0.250	1.00	ug/L	1					
Trichloroethylene	U	ND		0.250	1.00	ug/L	1					
Trichlorofluoromethane	U	ND		0.310	5.00	ug/L	1					
Trichlorotrifluoroethane	U	ND		1.00	10.0	ug/L	1					
Vinyl chloride	U	ND		0.500	1.00	ug/L	1					
Xylenes (total)	U	ND		0.250	3.00	ug/L	1					
cis-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
cis-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					
trans-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
trans-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	EPA 901.1		
2	EPA 900.0		
3	EPA 906.0 Modified		
4	SW846 8260B		

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	GEL 8260B Method List Liquid	45.5 ug/L	50.0	91	(68%-121%)
Bromofluorobenzene	GEL 8260B Method List Liquid	49.6 ug/L	50.0	99	(80%-120%)
Dibromofluoromethane	GEL 8260B Method List Liquid	44.8 ug/L	50.0	90	(78%-124%)
Toluene-d8	GEL 8260B Method List Liquid	52.4 ug/L	50.0	105	(77%-122%)

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Client Sample ID: 082207-02  
Sample ID: 192249002

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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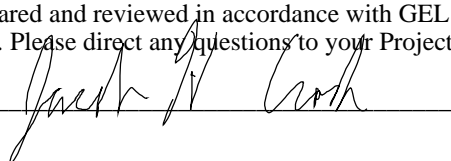
A The TIC is a suspected aldol-condensation product  
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.  
BD Results are either below the MDC or tracer recovery is low  
C Analyte has been confirmed by GC/MS analysis  
D Results are reported from a diluted aliquot of the sample  
E Organics--Concentration of the target analyte exceeds the instrument calibration range  
H Analytical holding time was exceeded  
J Value is estimated  
M M if above MDC and less than LLD  
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).  
Quantitation is based on nearest internal standard response factor  
N/A RPD or %Recovery limits do not apply.  
ND Analyte concentration is not detected above the detection limit  
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%  
R Sample results are rejected  
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.  
UI Gamma Spectroscopy--Uncertain identification  
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
Y QC Samples were not spiked with this compound  
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.  
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Client Sample ID: 082207-03  
Sample ID: 192249003  
Matrix: Ground Water  
Collect Date: 22-AUG-07 09:40  
Receive Date: 23-AUG-07  
Collector: Client

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Rad Gamma Spec Analysis</b>												
<i>GammaSpec, Gamma, Liquid (Standard List)</i>												
<b>Rad Gas Flow Proportional Counting</b>												
<i>GFPC, Gross Alpha/Beta, liquid</i>												
Alpha		5.09	+/-2.08	1.99	5.00	pCi/L		HAK	08/27/07	1328	663410	2
Beta	U	ND	+/-2.71	4.47	5.00	pCi/L		B				
<b>Rad Liquid Scintillation Analysis</b>												
<i>LSC, Tritium Dist, Liquid</i>												
Tritium	U	ND	+/-317	529	700	pCi/L		AXD2	08/27/07	1122	663391	3
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
1,1,1-Trichloroethane	U	ND		0.300	1.00	ug/L	1	DXK1	08/29/07	1857	663867	4
1,1,2,2-Tetrachloroethane	U	ND		0.250	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND		0.250	1.00	ug/L	1					
1,1-Dichloroethane	U	ND		0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloroethane	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloropropane	U	ND		0.250	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dioxane	U	ND		20.0	200	ug/L	1					
2-Butanone	U	ND		1.25	10.0	ug/L	1					
Acrolein	U	ND		3.00	10.0	ug/L	1					
Acrylonitrile	U	ND		1.00	10.0	ug/L	1					
Benzene	U	ND		0.300	1.00	ug/L	1					
Bromodichloromethane	U	ND		0.250	1.00	ug/L	1					
Bromoform	U	ND		0.250	1.00	ug/L	1					
Bromomethane	U	ND		0.500	1.00	ug/L	1					
Carbon tetrachloride	U	ND		0.250	1.00	ug/L	1					
Chlorobenzene	U	ND		0.250	1.00	ug/L	1					
Chloroethane	U	ND		0.500	1.00	ug/L	1					
Chloroform	U	ND		0.250	1.00	ug/L	1					
Chloromethane	U	ND		0.500	1.00	ug/L	1					

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Client Sample ID: 082207-03  
Sample ID: 192249003

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
Dibromochloromethane	U	ND		0.250	1.00	ug/L	1					
Dichlorodifluoromethane	U	ND		0.500	5.00	ug/L	1					
Ethylbenzene	U	ND		0.250	1.00	ug/L	1					
Methylene chloride	BJ	4.48		2.00	5.00	ug/L	1					
Tetrachloroethylene	U	ND		0.250	1.00	ug/L	1					
Toluene	U	ND		0.250	1.00	ug/L	1					
Trichloroethylene	U	ND		0.250	1.00	ug/L	1					
Trichlorofluoromethane	U	ND		0.310	5.00	ug/L	1					
Trichlorotrifluoroethane	U	ND		1.00	10.0	ug/L	1					
Vinyl chloride	U	ND		0.500	1.00	ug/L	1					
Xylenes (total)	U	ND		0.250	3.00	ug/L	1					
cis-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
cis-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					
trans-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
trans-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	EPA 901.1		
2	EPA 900.0		
3	EPA 906.0 Modified		
4	SW846 8260B		

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	GEL 8260B Method List Liquid	43.1 ug/L	50.0	86	(68%-121%)
Bromofluorobenzene	GEL 8260B Method List Liquid	47.3 ug/L	50.0	95	(80%-120%)
Dibromofluoromethane	GEL 8260B Method List Liquid	44.8 ug/L	50.0	90	(78%-124%)
Toluene-d8	GEL 8260B Method List Liquid	50.7 ug/L	50.0	101	(77%-122%)

### Notes:

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Sample ID: 192249003

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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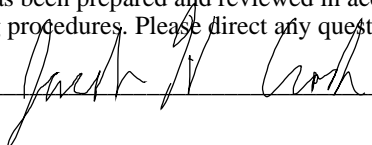
A The TIC is a suspected aldol-condensation product  
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.  
BD Results are either below the MDC or tracer recovery is low  
C Analyte has been confirmed by GC/MS analysis  
D Results are reported from a diluted aliquot of the sample  
E Organics--Concentration of the target analyte exceeds the instrument calibration range  
H Analytical holding time was exceeded  
J Value is estimated  
M M if above MDC and less than LLD  
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).  
Quantitation is based on nearest internal standard response factor  
N/A RPD or %Recovery limits do not apply.  
ND Analyte concentration is not detected above the detection limit  
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%  
R Sample results are rejected  
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.  
UI Gamma Spectroscopy--Uncertain identification  
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
Y QC Samples were not spiked with this compound  
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.  
h Preparation or preservation holding time was exceeded

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Client Sample ID: 082207-04  
Sample ID: 192249004  
Matrix: Ground Water  
Collect Date: 22-AUG-07 09:45  
Receive Date: 23-AUG-07  
Collector: Client

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Rad Gamma Spec Analysis</b>												
<i>Gammascpec, Gamma, Liquid (Standard List)</i>												
<b>Rad Gas Flow Proportional Counting</b>												
<i>GFPC, Gross Alpha/Beta, liquid</i>												
Alpha		2.35	+/-1.52	1.93	5.00	pCi/L		HAK	08/27/07	1328	663410	2
Beta	U	ND	+/-2.42	3.93	5.00	pCi/L		B				
<b>Rad Liquid Scintillation Analysis</b>												
<i>LSC, Tritium Dist, Liquid</i>												
Tritium	U	ND	+/-291	524	700	pCi/L		AXD2	08/27/07	1138	663391	3
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
1,1,1-Trichloroethane	U	ND		0.300	1.00	ug/L	1	DXK1	08/28/07	0132	663867	4
1,1,2,2-Tetrachloroethane	U	ND		0.250	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND		0.250	1.00	ug/L	1					
1,1-Dichloroethane	U	ND		0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloroethane	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloropropane	U	ND		0.250	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dioxane	U	ND		20.0	200	ug/L	1					
2-Butanone	U	ND		1.25	10.0	ug/L	1					
Acrolein	U	ND		3.00	10.0	ug/L	1					
Acrylonitrile	U	ND		1.00	10.0	ug/L	1					
Benzene	U	ND		0.300	1.00	ug/L	1					
Bromodichloromethane	U	ND		0.250	1.00	ug/L	1					
Bromoform	U	ND		0.250	1.00	ug/L	1					
Bromomethane	U	ND		0.500	1.00	ug/L	1					
Carbon tetrachloride	U	ND		0.250	1.00	ug/L	1					
Chlorobenzene	U	ND		0.250	1.00	ug/L	1					
Chloroethane	U	ND		0.500	1.00	ug/L	1					
Chloroform	U	ND		0.250	1.00	ug/L	1					
Chloromethane	U	ND		0.500	1.00	ug/L	1					

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Sample ID: 192249004

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
Dibromochloromethane	U	ND		0.250	1.00	ug/L	1					
Dichlorodifluoromethane	U	ND		0.500	5.00	ug/L	1					
Ethylbenzene	U	ND		0.250	1.00	ug/L	1					
Methylene chloride	J	4.25		2.00	5.00	ug/L	1					
Tetrachloroethylene	U	ND		0.250	1.00	ug/L	1					
Toluene	U	ND		0.250	1.00	ug/L	1					
Trichloroethylene	U	ND		0.250	1.00	ug/L	1					
Trichlorofluoromethane	U	ND		0.310	5.00	ug/L	1					
Trichlorotrifluoroethane	U	ND		1.00	10.0	ug/L	1					
Vinyl chloride	U	ND		0.500	1.00	ug/L	1					
Xylenes (total)	U	ND		0.250	3.00	ug/L	1					
cis-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
cis-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					
trans-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
trans-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	EPA 901.1		
2	EPA 900.0		
3	EPA 906.0 Modified		
4	SW846 8260B		

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	GEL 8260B Method List Liquid	48.6 ug/L	50.0	97	(68%-121%)
Bromofluorobenzene	GEL 8260B Method List Liquid	51.1 ug/L	50.0	102	(80%-120%)
Dibromofluoromethane	GEL 8260B Method List Liquid	46.4 ug/L	50.0	93	(78%-124%)
Toluene-d8	GEL 8260B Method List Liquid	53.1 ug/L	50.0	106	(77%-122%)

### Notes:

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- < Result is less than value reported
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## Certificate of Analysis

Company : SC DHEC  
Address : 2600 Bull Street  
Columbia, South Carolina 29201

Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

Page 3 of 3

Client Sample ID: 082207-04  
Sample ID: 192249004

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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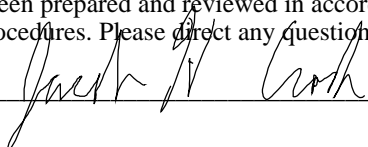
A The TIC is a suspected aldol-condensation product  
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.  
BD Results are either below the MDC or tracer recovery is low  
C Analyte has been confirmed by GC/MS analysis  
D Results are reported from a diluted aliquot of the sample  
E Organics--Concentration of the target analyte exceeds the instrument calibration range  
H Analytical holding time was exceeded  
J Value is estimated  
M M if above MDC and less than LLD  
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).  
Quantitation is based on nearest internal standard response factor  
N/A RPD or %Recovery limits do not apply.  
ND Analyte concentration is not detected above the detection limit  
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%  
R Sample results are rejected  
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.  
UI Gamma Spectroscopy--Uncertain identification  
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
Y QC Samples were not spiked with this compound  
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.  
h Preparation or preservation holding time was exceeded

The above sample is reported on an "as received" basis.

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Company : SC DHEC  
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Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

Page 1 of 3

Client Sample ID: 082207-05  
Sample ID: 192249005  
Matrix: Ground Water  
Collect Date: 22-AUG-07 10:00  
Receive Date: 23-AUG-07  
Collector: Client

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Rad Gamma Spec Analysis

*Gammascpec, Gamma, Liquid (Standard List)*

### Rad Gas Flow Proportional Counting

*GFPC, Gross Alpha/Beta, liquid*

Alpha		3.14	+/-2.05	3.04	5.00	pCi/L		HAK	08/27/07	1328	663410	2
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Beta	U	ND	+/-2.77	4.51	5.00	pCi/L		B				
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### Rad Liquid Scintillation Analysis

*LSC, Tritium Dist, Liquid*

Tritium	U	ND	+/-324	524	700	pCi/L		AXD2	08/27/07	1155	663391	3
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### Volatile Organics

*GEL 8260B Method List Liquid*

1,1,1-Trichloroethane	U	ND		0.300	1.00	ug/L	1	DXK1	08/28/07	0157	663867	4
1,1,2,2-Tetrachloroethane	U	ND		0.250	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND		0.250	1.00	ug/L	1					
1,1-Dichloroethane	U	ND		0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloroethane	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloropropane	U	ND		0.250	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dioxane	U	ND		20.0	200	ug/L	1					
2-Butanone	U	ND		1.25	10.0	ug/L	1					
Acrolein	U	ND		3.00	10.0	ug/L	1					
Acrylonitrile	U	ND		1.00	10.0	ug/L	1					
Benzene	U	ND		0.300	1.00	ug/L	1					
Bromodichloromethane	U	ND		0.250	1.00	ug/L	1					
Bromoform	U	ND		0.250	1.00	ug/L	1					
Bromomethane	U	ND		0.500	1.00	ug/L	1					
Carbon tetrachloride	U	ND		0.250	1.00	ug/L	1					
Chlorobenzene	U	ND		0.250	1.00	ug/L	1					
Chloroethane	U	ND		0.500	1.00	ug/L	1					
Chloroform	U	ND		0.250	1.00	ug/L	1					
Chloromethane	U	ND		0.500	1.00	ug/L	1					

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Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

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Client Sample ID: 082207-05  
Sample ID: 192249005

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
Dibromochloromethane	U	ND		0.250	1.00	ug/L	1					
Dichlorodifluoromethane	U	ND		0.500	5.00	ug/L	1					
Ethylbenzene	U	ND		0.250	1.00	ug/L	1					
Methylene chloride	J	4.87		2.00	5.00	ug/L	1					
Tetrachloroethylene	U	ND		0.250	1.00	ug/L	1					
Toluene	U	ND		0.250	1.00	ug/L	1					
Trichloroethylene	U	ND		0.250	1.00	ug/L	1					
Trichlorofluoromethane	U	ND		0.310	5.00	ug/L	1					
Trichlorotrifluoroethane	U	ND		1.00	10.0	ug/L	1					
Vinyl chloride	U	ND		0.500	1.00	ug/L	1					
Xylenes (total)	U	ND		0.250	3.00	ug/L	1					
cis-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
cis-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					
trans-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
trans-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	EPA 901.1		
2	EPA 900.0		
3	EPA 906.0 Modified		
4	SW846 8260B		

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	GEL 8260B Method List Liquid	48.5 ug/L	50.0	97	(68%-121%)
Bromofluorobenzene	GEL 8260B Method List Liquid	52.2 ug/L	50.0	104	(80%-120%)
Dibromofluoromethane	GEL 8260B Method List Liquid	46.2 ug/L	50.0	92	(78%-124%)
Toluene-d8	GEL 8260B Method List Liquid	53.1 ug/L	50.0	106	(77%-122%)

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Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

Page 3 of 3

Client Sample ID: 082207-05  
Sample ID: 192249005

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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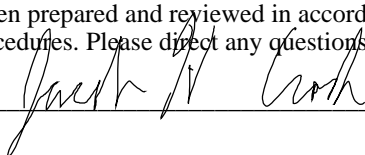
A The TIC is a suspected aldol-condensation product  
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.  
BD Results are either below the MDC or tracer recovery is low  
C Analyte has been confirmed by GC/MS analysis  
D Results are reported from a diluted aliquot of the sample  
E Organics--Concentration of the target analyte exceeds the instrument calibration range  
H Analytical holding time was exceeded  
J Value is estimated  
M M if above MDC and less than LLD  
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).  
Quantitation is based on nearest internal standard response factor  
N/A RPD or %Recovery limits do not apply.  
ND Analyte concentration is not detected above the detection limit  
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%  
R Sample results are rejected  
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.  
UI Gamma Spectroscopy--Uncertain identification  
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
Y QC Samples were not spiked with this compound  
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.  
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Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

Page 1 of 3

Client Sample ID: 082207-06  
Sample ID: 192249006  
Matrix: Ground Water  
Collect Date: 22-AUG-07 10:30  
Receive Date: 23-AUG-07  
Collector: Client

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Rad Gamma Spec Analysis</b>												
<i>Gammascpec, Gamma, Liquid (Standard List)</i>												
<b>Rad Gas Flow Proportional Counting</b>												
<i>GFPC, Gross Alpha/Beta, liquid</i>												
Alpha	U	ND	+/-1.10	1.65	5.00	pCi/L		HAK	08/27/07	1328	663410	2
Beta	U	ND	+/-2.90	4.99	5.00	pCi/L		B				
<b>Rad Liquid Scintillation Analysis</b>												
<i>LSC, Tritium Dist, Liquid</i>												
Tritium	U	ND	+/-307	525	700	pCi/L		AXD2	08/27/07	1212	663391	3
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
1,1,1-Trichloroethane	U	ND		0.300	1.00	ug/L	1	DXK1	08/28/07	0223	663867	4
1,1,2,2-Tetrachloroethane	U	ND		0.250	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND		0.250	1.00	ug/L	1					
1,1-Dichloroethane	U	ND		0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloroethane	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloropropane	U	ND		0.250	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dioxane	U	ND		20.0	200	ug/L	1					
2-Butanone	U	ND		1.25	10.0	ug/L	1					
Acrolein	U	ND		3.00	10.0	ug/L	1					
Acrylonitrile	U	ND		1.00	10.0	ug/L	1					
Benzene	U	ND		0.300	1.00	ug/L	1					
Bromodichloromethane	U	ND		0.250	1.00	ug/L	1					
Bromoform	U	ND		0.250	1.00	ug/L	1					
Bromomethane	U	ND		0.500	1.00	ug/L	1					
Carbon tetrachloride	U	ND		0.250	1.00	ug/L	1					
Chlorobenzene	U	ND		0.250	1.00	ug/L	1					
Chloroethane	U	ND		0.500	1.00	ug/L	1					
Chloroform	U	ND		0.250	1.00	ug/L	1					
Chloromethane	U	ND		0.500	1.00	ug/L	1					

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Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

Page 2 of 3

Client Sample ID: 082207-06  
Sample ID: 192249006

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
Dibromochloromethane	U	ND		0.250	1.00	ug/L	1					
Dichlorodifluoromethane	U	ND		0.500	5.00	ug/L	1					
Ethylbenzene	U	ND		0.250	1.00	ug/L	1					
Methylene chloride	J	4.55		2.00	5.00	ug/L	1					
Tetrachloroethylene	U	ND		0.250	1.00	ug/L	1					
Toluene	U	ND		0.250	1.00	ug/L	1					
Trichloroethylene	U	ND		0.250	1.00	ug/L	1					
Trichlorofluoromethane	U	ND		0.310	5.00	ug/L	1					
Trichlorotrifluoroethane	U	ND		1.00	10.0	ug/L	1					
Vinyl chloride	U	ND		0.500	1.00	ug/L	1					
Xylenes (total)	U	ND		0.250	3.00	ug/L	1					
cis-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
cis-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					
trans-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
trans-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	EPA 901.1		
2	EPA 900.0		
3	EPA 906.0 Modified		
4	SW846 8260B		

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	GEL 8260B Method List Liquid	47.8 ug/L	50.0	96	(68%-121%)
Bromofluorobenzene	GEL 8260B Method List Liquid	50.5 ug/L	50.0	101	(80%-120%)
Dibromofluoromethane	GEL 8260B Method List Liquid	45.6 ug/L	50.0	91	(78%-124%)
Toluene-d8	GEL 8260B Method List Liquid	53.8 ug/L	50.0	108	(77%-122%)

### Notes:

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Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

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Client Sample ID: 082207-06  
Sample ID: 192249006

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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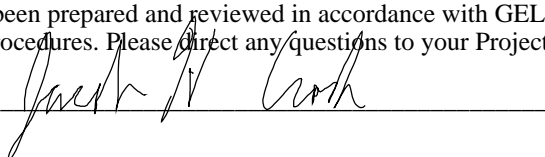
A The TIC is a suspected aldol-condensation product  
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.  
BD Results are either below the MDC or tracer recovery is low  
C Analyte has been confirmed by GC/MS analysis  
D Results are reported from a diluted aliquot of the sample  
E Organics--Concentration of the target analyte exceeds the instrument calibration range  
H Analytical holding time was exceeded  
J Value is estimated  
M M if above MDC and less than LLD  
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).  
Quantitation is based on nearest internal standard response factor  
N/A RPD or %Recovery limits do not apply.  
ND Analyte concentration is not detected above the detection limit  
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%  
R Sample results are rejected  
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.  
UI Gamma Spectroscopy--Uncertain identification  
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
Y QC Samples were not spiked with this compound  
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.  
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Reviewed by



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## Certificate of Analysis

Company : SC DHEC  
Address : 2600 Bull Street  
Columbia, South Carolina 29201

Report Date: August 30, 2007

Contact: Mr. Mike Gandy

Project: SC DHEC ChemNuc GW

Page 1 of 3

Client Sample ID: 082207-07  
Sample ID: 192249007  
Matrix: Ground Water  
Collect Date: 22-AUG-07 10:35  
Receive Date: 23-AUG-07  
Collector: Client

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Rad Gamma Spec Analysis

*Gammascpec, Gamma, Liquid (Standard List)*

### Rad Gas Flow Proportional Counting

*GFPC, Gross Alpha/Beta, liquid*

Alpha	U	ND	+/-1.18	1.83	5.00	pCi/L		HAK	08/27/07	1328	663410	2
Beta	U	ND	+/-2.23	4.00	5.00	pCi/L		B				

### Rad Liquid Scintillation Analysis

*LSC, Tritium Dist, Liquid*

Tritium	U	ND	+/-308	526	700	pCi/L		AXD2	08/27/07	1228	663391	3
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### Volatile Organics

*GEL 8260B Method List Liquid*

1,1,1-Trichloroethane	U	ND		0.300	1.00	ug/L	1	DXK1	08/28/07	0248	663867	4
1,1,2,2-Tetrachloroethane	U	ND		0.250	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND		0.250	1.00	ug/L	1					
1,1-Dichloroethane	U	ND		0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloroethane	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloropropane	U	ND		0.250	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dioxane	U	ND		20.0	200	ug/L	1					
2-Butanone	U	ND		1.25	10.0	ug/L	1					
Acrolein	U	ND		3.00	10.0	ug/L	1					
Acrylonitrile	U	ND		1.00	10.0	ug/L	1					
Benzene	U	ND		0.300	1.00	ug/L	1					
Bromodichloromethane	U	ND		0.250	1.00	ug/L	1					
Bromoform	U	ND		0.250	1.00	ug/L	1					
Bromomethane	U	ND		0.500	1.00	ug/L	1					
Carbon tetrachloride	U	ND		0.250	1.00	ug/L	1					
Chlorobenzene	U	ND		0.250	1.00	ug/L	1					
Chloroethane	U	ND		0.500	1.00	ug/L	1					
Chloroform	U	ND		0.250	1.00	ug/L	1					
Chloromethane	U	ND		0.500	1.00	ug/L	1					

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## Certificate of Analysis

Company : SC DHEC  
Address : 2600 Bull Street  
Columbia, South Carolina 29201

Report Date: August 30, 2007

Contact: Mr. Mike Gandy

Project: SC DHEC ChemNuc GW

Page 2 of 3

Client Sample ID: 082207-07  
Sample ID: 192249007

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
Dibromochloromethane	U	ND		0.250	1.00	ug/L	1					
Dichlorodifluoromethane	U	ND		0.500	5.00	ug/L	1					
Ethylbenzene	U	ND		0.250	1.00	ug/L	1					
Methylene chloride	J	4.23		2.00	5.00	ug/L	1					
Tetrachloroethylene	U	ND		0.250	1.00	ug/L	1					
Toluene	U	ND		0.250	1.00	ug/L	1					
Trichloroethylene	U	ND		0.250	1.00	ug/L	1					
Trichlorofluoromethane	U	ND		0.310	5.00	ug/L	1					
Trichlorotrifluoroethane	U	ND		1.00	10.0	ug/L	1					
Vinyl chloride	U	ND		0.500	1.00	ug/L	1					
Xylenes (total)	U	ND		0.250	3.00	ug/L	1					
cis-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
cis-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					
trans-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
trans-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	EPA 901.1		
2	EPA 900.0		
3	EPA 906.0 Modified		
4	SW846 8260B		

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	GEL 8260B Method List Liquid	47.3 ug/L	50.0	95	(68%-121%)
Bromofluorobenzene	GEL 8260B Method List Liquid	50.5 ug/L	50.0	101	(80%-120%)
Dibromofluoromethane	GEL 8260B Method List Liquid	45.8 ug/L	50.0	92	(78%-124%)
Toluene-d8	GEL 8260B Method List Liquid	52.7 ug/L	50.0	105	(77%-122%)

### Notes:

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- > Result is greater than value reported

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Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

Page 3 of 3

Client Sample ID: 082207-07  
Sample ID: 192249007

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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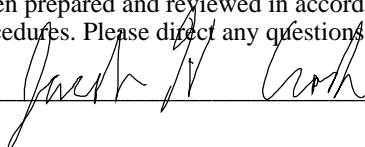
A The TIC is a suspected aldol-condensation product  
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.  
BD Results are either below the MDC or tracer recovery is low  
C Analyte has been confirmed by GC/MS analysis  
D Results are reported from a diluted aliquot of the sample  
E Organics--Concentration of the target analyte exceeds the instrument calibration range  
H Analytical holding time was exceeded  
J Value is estimated  
M M if above MDC and less than LLD  
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).  
Quantitation is based on nearest internal standard response factor  
N/A RPD or %Recovery limits do not apply.  
ND Analyte concentration is not detected above the detection limit  
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%  
R Sample results are rejected  
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.  
UI Gamma Spectroscopy--Uncertain identification  
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
Y QC Samples were not spiked with this compound  
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.  
h Preparation or preservation holding time was exceeded

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## Certificate of Analysis

Company : SC DHEC  
Address : 2600 Bull Street  
Columbia, South Carolina 29201

Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

Page 1 of 3

Client Sample ID: 082207-08  
Sample ID: 192249008  
Matrix: Ground Water  
Collect Date: 22-AUG-07 11:00  
Receive Date: 23-AUG-07  
Collector: Client

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Rad Gamma Spec Analysis

*Gammascpec, Gamma, Liquid (Standard List)*

### Rad Gas Flow Proportional Counting

*GFPC, Gross Alpha/Beta, liquid*

Alpha		3.91	+/-2.00	2.57	5.00	pCi/L		HAK	08/27/07	1334	663410	2
Beta	U	ND	+/-2.64	4.90	5.00	pCi/L		B				

### Rad Liquid Scintillation Analysis

*LSC, Tritium Dist, Liquid*

Tritium	U	ND	+/-312	526	700	pCi/L		AXD2	08/27/07	1245	663391	3
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### Volatile Organics

*GEL 8260B Method List Liquid*

1,1,1-Trichloroethane	U	ND		0.300	1.00	ug/L	1	DXK1	08/28/07	0313	663867	4
1,1,2,2-Tetrachloroethane	U	ND		0.250	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND		0.250	1.00	ug/L	1					
1,1-Dichloroethane	U	ND		0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloroethane	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloropropane	U	ND		0.250	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dioxane	U	ND		20.0	200	ug/L	1					
2-Butanone	U	ND		1.25	10.0	ug/L	1					
Acrolein	U	ND		3.00	10.0	ug/L	1					
Acrylonitrile	U	ND		1.00	10.0	ug/L	1					
Benzene	U	ND		0.300	1.00	ug/L	1					
Bromodichloromethane	U	ND		0.250	1.00	ug/L	1					
Bromoform	U	ND		0.250	1.00	ug/L	1					
Bromomethane	U	ND		0.500	1.00	ug/L	1					
Carbon tetrachloride	U	ND		0.250	1.00	ug/L	1					
Chlorobenzene	U	ND		0.250	1.00	ug/L	1					
Chloroethane	U	ND		0.500	1.00	ug/L	1					
Chloroform	U	ND		0.250	1.00	ug/L	1					
Chloromethane	U	ND		0.500	1.00	ug/L	1					

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Report Date: August 30, 2007

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Client Sample ID: 082207-08  
Sample ID: 192249008

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
Dibromochloromethane	U	ND		0.250	1.00	ug/L	1					
Dichlorodifluoromethane	U	ND		0.500	5.00	ug/L	1					
Ethylbenzene	U	ND		0.250	1.00	ug/L	1					
Methylene chloride	J	3.74		2.00	5.00	ug/L	1					
Tetrachloroethylene	U	ND		0.250	1.00	ug/L	1					
Toluene	U	ND		0.250	1.00	ug/L	1					
Trichloroethylene	U	ND		0.250	1.00	ug/L	1					
Trichlorofluoromethane	U	ND		0.310	5.00	ug/L	1					
Trichlorotrifluoroethane	U	ND		1.00	10.0	ug/L	1					
Vinyl chloride	U	ND		0.500	1.00	ug/L	1					
Xylenes (total)	U	ND		0.250	3.00	ug/L	1					
cis-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
cis-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					
trans-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
trans-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	EPA 901.1		
2	EPA 900.0		
3	EPA 906.0 Modified		
4	SW846 8260B		

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	GEL 8260B Method List Liquid	48.6 ug/L	50.0	97	(68%-121%)
Bromofluorobenzene	GEL 8260B Method List Liquid	51.4 ug/L	50.0	103	(80%-120%)
Dibromofluoromethane	GEL 8260B Method List Liquid	46.4 ug/L	50.0	93	(78%-124%)
Toluene-d8	GEL 8260B Method List Liquid	53.8 ug/L	50.0	108	(77%-122%)

### Notes:

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## Certificate of Analysis

Company : SC DHEC  
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Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

Page 3 of 3

Client Sample ID: 082207-08  
Sample ID: 192249008

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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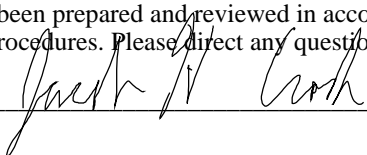
A The TIC is a suspected aldol-condensation product  
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.  
BD Results are either below the MDC or tracer recovery is low  
C Analyte has been confirmed by GC/MS analysis  
D Results are reported from a diluted aliquot of the sample  
E Organics--Concentration of the target analyte exceeds the instrument calibration range  
H Analytical holding time was exceeded  
J Value is estimated  
M M if above MDC and less than LLD  
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).  
Quantitation is based on nearest internal standard response factor  
N/A RPD or %Recovery limits do not apply.  
ND Analyte concentration is not detected above the detection limit  
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%  
R Sample results are rejected  
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.  
UI Gamma Spectroscopy--Uncertain identification  
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
Y QC Samples were not spiked with this compound  
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.  
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## Certificate of Analysis

Company : SC DHEC  
Address : 2600 Bull Street  
Columbia, South Carolina 29201

Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

Page 1 of 3

Client Sample ID: 082207-09  
Sample ID: 192249009  
Matrix: Ground Water  
Collect Date: 22-AUG-07 11:20  
Receive Date: 23-AUG-07  
Collector: Client

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Rad Gamma Spec Analysis</b>												
<i>Gammascpec, Gamma, Liquid (Standard List)</i>												
<b>Rad Gas Flow Proportional Counting</b>												
<i>GFPC, Gross Alpha/Beta, liquid</i>												
Alpha		4.32	+/-2.16	2.88	5.00	pCi/L		HAK	08/27/07	1334	663410	2
Beta	U	ND	+/-2.78	4.51	5.00	pCi/L		B				
<b>Rad Liquid Scintillation Analysis</b>												
<i>LSC, Tritium Dist, Liquid</i>												
Tritium	U	ND	+/-331	525	700	pCi/L		AXD2	08/27/07	1302	663391	3
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
1,1,1-Trichloroethane	U	ND		0.300	1.00	ug/L	1	DXK1	08/28/07	0339	663867	4
1,1,2,2-Tetrachloroethane	U	ND		0.250	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND		0.250	1.00	ug/L	1					
1,1-Dichloroethane	U	ND		0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloroethane	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloropropane	U	ND		0.250	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dioxane	U	ND		20.0	200	ug/L	1					
2-Butanone	U	ND		1.25	10.0	ug/L	1					
Acrolein	U	ND		3.00	10.0	ug/L	1					
Acrylonitrile	U	ND		1.00	10.0	ug/L	1					
Benzene	U	ND		0.300	1.00	ug/L	1					
Bromodichloromethane	U	ND		0.250	1.00	ug/L	1					
Bromoform	U	ND		0.250	1.00	ug/L	1					
Bromomethane	U	ND		0.500	1.00	ug/L	1					
Carbon tetrachloride	U	ND		0.250	1.00	ug/L	1					
Chlorobenzene	U	ND		0.250	1.00	ug/L	1					
Chloroethane	U	ND		0.500	1.00	ug/L	1					
Chloroform	U	ND		0.250	1.00	ug/L	1					
Chloromethane	U	ND		0.500	1.00	ug/L	1					



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Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

Page 2 of 3

Client Sample ID: 082207-09  
Sample ID: 192249009

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
Dibromochloromethane	U	ND		0.250	1.00	ug/L	1					
Dichlorodifluoromethane	U	ND		0.500	5.00	ug/L	1					
Ethylbenzene	U	ND		0.250	1.00	ug/L	1					
Methylene chloride	J	4.61		2.00	5.00	ug/L	1					
Tetrachloroethylene	U	ND		0.250	1.00	ug/L	1					
Toluene	U	ND		0.250	1.00	ug/L	1					
Trichloroethylene	U	ND		0.250	1.00	ug/L	1					
Trichlorofluoromethane	U	ND		0.310	5.00	ug/L	1					
Trichlorotrifluoroethane	U	ND		1.00	10.0	ug/L	1					
Vinyl chloride	U	ND		0.500	1.00	ug/L	1					
Xylenes (total)	U	ND		0.250	3.00	ug/L	1					
cis-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
cis-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					
trans-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
trans-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	EPA 901.1		
2	EPA 900.0		
3	EPA 906.0 Modified		
4	SW846 8260B		

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	GEL 8260B Method List Liquid	47.9 ug/L	50.0	96	(68%-121%)
Bromofluorobenzene	GEL 8260B Method List Liquid	50.7 ug/L	50.0	101	(80%-120%)
Dibromofluoromethane	GEL 8260B Method List Liquid	45.9 ug/L	50.0	92	(78%-124%)
Toluene-d8	GEL 8260B Method List Liquid	53.4 ug/L	50.0	107	(77%-122%)

### Notes:

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Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

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Client Sample ID: 082207-09  
Sample ID: 192249009

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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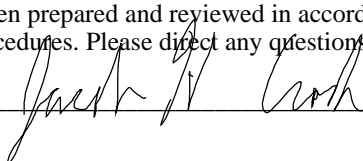
A The TIC is a suspected aldol-condensation product  
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.  
BD Results are either below the MDC or tracer recovery is low  
C Analyte has been confirmed by GC/MS analysis  
D Results are reported from a diluted aliquot of the sample  
E Organics--Concentration of the target analyte exceeds the instrument calibration range  
H Analytical holding time was exceeded  
J Value is estimated  
M M if above MDC and less than LLD  
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).  
Quantitation is based on nearest internal standard response factor  
N/A RPD or %Recovery limits do not apply.  
ND Analyte concentration is not detected above the detection limit  
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%  
R Sample results are rejected  
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.  
UI Gamma Spectroscopy--Uncertain identification  
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
Y QC Samples were not spiked with this compound  
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.  
h Preparation or preservation holding time was exceeded

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Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

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Client Sample ID: 082207-10  
Sample ID: 192249010  
Matrix: Ground Water  
Collect Date: 22-AUG-07 11:50  
Receive Date: 23-AUG-07  
Collector: Client

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Rad Gamma Spec Analysis</b>												
<i>Gammascpec, Gamma, Liquid (Standard List)</i>												
<b>Rad Gas Flow Proportional Counting</b>												
<i>GFPC, Gross Alpha/Beta, liquid</i>												
Alpha	U	ND	+/-1.16	2.04	5.00	pCi/L		HAK	08/27/07	1334	663410	2
Beta	U	ND	+/-2.49	4.14	5.00	pCi/L		B				
<b>Rad Liquid Scintillation Analysis</b>												
<i>LSC, Tritium Dist, Liquid</i>												
Tritium	U	ND	+/-323	524	700	pCi/L		AXD2	08/27/07	1318	663391	3
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
1,1,1-Trichloroethane	U	ND		0.300	1.00	ug/L	1	DXK1	08/29/07	1923	663867	4
1,1,2,2-Tetrachloroethane	U	ND		0.250	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND		0.250	1.00	ug/L	1					
1,1-Dichloroethane	U	ND		0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloroethane	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloropropane	U	ND		0.250	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dioxane	U	ND		20.0	200	ug/L	1					
2-Butanone	U	ND		1.25	10.0	ug/L	1					
Acrolein	U	ND		3.00	10.0	ug/L	1					
Acrylonitrile	U	ND		1.00	10.0	ug/L	1					
Benzene	U	ND		0.300	1.00	ug/L	1					
Bromodichloromethane	U	ND		0.250	1.00	ug/L	1					
Bromoform	U	ND		0.250	1.00	ug/L	1					
Bromomethane	U	ND		0.500	1.00	ug/L	1					
Carbon tetrachloride	U	ND		0.250	1.00	ug/L	1					
Chlorobenzene	U	ND		0.250	1.00	ug/L	1					
Chloroethane	U	ND		0.500	1.00	ug/L	1					
Chloroform	U	ND		0.250	1.00	ug/L	1					
Chloromethane	U	ND		0.500	1.00	ug/L	1					

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## Certificate of Analysis

Company : SC DHEC  
Address : 2600 Bull Street  
Columbia, South Carolina 29201

Report Date: August 30, 2007

Contact: Mr. Mike Gandy

Project: SC DHEC ChemNuc GW

Page 2 of 3

Client Sample ID: 082207-10  
Sample ID: 192249010

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
Dibromochloromethane	U	ND		0.250	1.00	ug/L	1					
Dichlorodifluoromethane	U	ND		0.500	5.00	ug/L	1					
Ethylbenzene	U	ND		0.250	1.00	ug/L	1					
Methylene chloride	U	ND		2.00	5.00	ug/L	1					
Tetrachloroethylene	U	ND		0.250	1.00	ug/L	1					
Toluene	U	ND		0.250	1.00	ug/L	1					
Trichloroethylene	U	ND		0.250	1.00	ug/L	1					
Trichlorofluoromethane	U	ND		0.310	5.00	ug/L	1					
Trichlorotrifluoroethane	U	ND		1.00	10.0	ug/L	1					
Vinyl chloride	U	ND		0.500	1.00	ug/L	1					
Xylenes (total)	U	ND		0.250	3.00	ug/L	1					
cis-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
cis-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					
trans-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
trans-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	EPA 901.1		
2	EPA 900.0		
3	EPA 906.0 Modified		
4	SW846 8260B		

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	GEL 8260B Method List Liquid	43.3 ug/L	50.0	87	(68%-121%)
Bromofluorobenzene	GEL 8260B Method List Liquid	48.2 ug/L	50.0	96	(80%-120%)
Dibromofluoromethane	GEL 8260B Method List Liquid	45.4 ug/L	50.0	91	(78%-124%)
Toluene-d8	GEL 8260B Method List Liquid	51.0 ug/L	50.0	102	(77%-122%)

### Notes:

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Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

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Client Sample ID: 082207-10  
Sample ID: 192249010

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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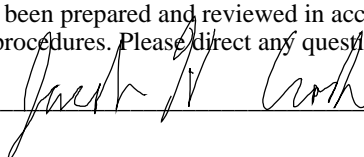
A The TIC is a suspected aldol-condensation product  
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.  
BD Results are either below the MDC or tracer recovery is low  
C Analyte has been confirmed by GC/MS analysis  
D Results are reported from a diluted aliquot of the sample  
E Organics--Concentration of the target analyte exceeds the instrument calibration range  
H Analytical holding time was exceeded  
J Value is estimated  
M M if above MDC and less than LLD  
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).  
Quantitation is based on nearest internal standard response factor  
N/A RPD or %Recovery limits do not apply.  
ND Analyte concentration is not detected above the detection limit  
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%  
R Sample results are rejected  
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.  
UI Gamma Spectroscopy--Uncertain identification  
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
Y QC Samples were not spiked with this compound  
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.  
h Preparation or preservation holding time was exceeded

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Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

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Client Sample ID: 082207-11  
Sample ID: 192249011  
Matrix: Ground Water  
Collect Date: 22-AUG-07 14:30  
Receive Date: 23-AUG-07  
Collector: Client

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Rad Gamma Spec Analysis</b>												
<i>Gammascpec, Gamma, Liquid (Standard List)</i>												
<b>Rad Gas Flow Proportional Counting</b>												
<i>GFPC, Gross Alpha/Beta, liquid</i>												
Alpha		4.84	+/-1.89	1.73	5.00	pCi/L		HAK	08/27/07	1334	663410	2
Beta		5.33	+/-2.81	4.36	5.00	pCi/L		B				
<b>Rad Liquid Scintillation Analysis</b>												
<i>LSC, Tritium Dist, Liquid</i>												
Tritium	U	ND	+/-323	523	700	pCi/L		AXD2	08/27/07	1335	663391	3
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
1,1,1-Trichloroethane	U	ND		0.300	1.00	ug/L	1	DXK1	08/28/07	0430	663867	4
1,1,2,2-Tetrachloroethane	U	ND		0.250	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND		0.250	1.00	ug/L	1					
1,1-Dichloroethane	U	ND		0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloroethane	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloropropane	U	ND		0.250	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dioxane	U	ND		20.0	200	ug/L	1					
2-Butanone	U	ND		1.25	10.0	ug/L	1					
Acrolein	U	ND		3.00	10.0	ug/L	1					
Acrylonitrile	U	ND		1.00	10.0	ug/L	1					
Benzene	U	ND		0.300	1.00	ug/L	1					
Bromodichloromethane	U	ND		0.250	1.00	ug/L	1					
Bromoform	U	ND		0.250	1.00	ug/L	1					
Bromomethane	U	ND		0.500	1.00	ug/L	1					
Carbon tetrachloride	U	ND		0.250	1.00	ug/L	1					
Chlorobenzene	U	ND		0.250	1.00	ug/L	1					
Chloroethane	U	ND		0.500	1.00	ug/L	1					
Chloroform	U	ND		0.250	1.00	ug/L	1					
Chloromethane	U	ND		0.500	1.00	ug/L	1					

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Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

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Client Sample ID: 082207-11  
Sample ID: 192249011

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
Dibromochloromethane	U	ND		0.250	1.00	ug/L	1					
Dichlorodifluoromethane	U	ND		0.500	5.00	ug/L	1					
Ethylbenzene	U	ND		0.250	1.00	ug/L	1					
Methylene chloride	J	4.78		2.00	5.00	ug/L	1					
Tetrachloroethylene	U	ND		0.250	1.00	ug/L	1					
Toluene	U	ND		0.250	1.00	ug/L	1					
Trichloroethylene	U	ND		0.250	1.00	ug/L	1					
Trichlorofluoromethane	U	ND		0.310	5.00	ug/L	1					
Trichlorotrifluoroethane	U	ND		1.00	10.0	ug/L	1					
Vinyl chloride	U	ND		0.500	1.00	ug/L	1					
Xylenes (total)	U	ND		0.250	3.00	ug/L	1					
cis-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
cis-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					
trans-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
trans-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	EPA 901.1		
2	EPA 900.0		
3	EPA 906.0 Modified		
4	SW846 8260B		

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	GEL 8260B Method List Liquid	50.3 ug/L	50.0	101	(68%-121%)
Bromofluorobenzene	GEL 8260B Method List Liquid	51.3 ug/L	50.0	103	(80%-120%)
Dibromofluoromethane	GEL 8260B Method List Liquid	46.9 ug/L	50.0	94	(78%-124%)
Toluene-d8	GEL 8260B Method List Liquid	54.7 ug/L	50.0	109	(77%-122%)

### Notes:

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## Certificate of Analysis

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Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

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Client Sample ID: 082207-11  
Sample ID: 192249011

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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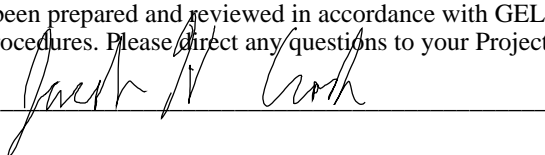
A The TIC is a suspected aldol-condensation product  
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.  
BD Results are either below the MDC or tracer recovery is low  
C Analyte has been confirmed by GC/MS analysis  
D Results are reported from a diluted aliquot of the sample  
E Organics--Concentration of the target analyte exceeds the instrument calibration range  
H Analytical holding time was exceeded  
J Value is estimated  
M M if above MDC and less than LLD  
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).  
Quantitation is based on nearest internal standard response factor  
N/A RPD or %Recovery limits do not apply.  
ND Analyte concentration is not detected above the detection limit  
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%  
R Sample results are rejected  
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.  
UI Gamma Spectroscopy--Uncertain identification  
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
Y QC Samples were not spiked with this compound  
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.  
h Preparation or preservation holding time was exceeded

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## Certificate of Analysis

Company : SC DHEC  
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Columbia, South Carolina 29201

Contact: Mr. Mike Gandy  
Project: SC DHEC ChemNuc GW

Report Date: August 30, 2007

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Client Sample ID: 082207-12  
Sample ID: 192249012  
Matrix: Ground Water  
Collect Date: 22-AUG-07 15:30  
Receive Date: 23-AUG-07  
Collector: Client

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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### Rad Gamma Spec Analysis

*Gammascpec, Gamma, Liquid (Standard List)*

### Rad Gas Flow Proportional Counting

*GFPC, Gross Alpha/Beta, liquid*

Alpha	U	ND	+/-2.07	2.82	5.00	pCi/L		HAK	08/27/07	1335	663410	2
Beta	U	ND	+/-3.02	5.00	5.00	pCi/L		B				

### Rad Liquid Scintillation Analysis

*LSC, Tritium Dist, Liquid*

Tritium	U	ND	+/-304	528	700	pCi/L		AXD2	08/27/07	1352	663391	3
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### Volatile Organics

*GEL 8260B Method List Liquid*

1,1,1-Trichloroethane	U	ND		0.300	1.00	ug/L	1	DXK1	08/29/07	1948	663867	4
1,1,2,2-Tetrachloroethane	U	ND		0.250	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND		0.250	1.00	ug/L	1					
1,1-Dichloroethane	U	ND		0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloroethane	U	ND		0.250	1.00	ug/L	1					
1,2-Dichloropropane	U	ND		0.250	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.250	1.00	ug/L	1					
1,4-Dioxane	U	ND		20.0	200	ug/L	1					
2-Butanone	U	ND		1.25	10.0	ug/L	1					
Acrolein	U	ND		3.00	10.0	ug/L	1					
Acrylonitrile	U	ND		1.00	10.0	ug/L	1					
Benzene	U	ND		0.300	1.00	ug/L	1					
Bromodichloromethane	U	ND		0.250	1.00	ug/L	1					
Bromoform	U	ND		0.250	1.00	ug/L	1					
Bromomethane	U	ND		0.500	1.00	ug/L	1					
Carbon tetrachloride	U	ND		0.250	1.00	ug/L	1					
Chlorobenzene	U	ND		0.250	1.00	ug/L	1					
Chloroethane	U	ND		0.500	1.00	ug/L	1					
Chloroform	U	ND		0.250	1.00	ug/L	1					
Chloromethane	U	ND		0.500	1.00	ug/L	1					

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Page 2 of 3

Client Sample ID: 082207-12  
Sample ID: 192249012

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<i>GEL 8260B Method List Liquid</i>												
Dibromochloromethane	U	ND		0.250	1.00	ug/L	1					
Dichlorodifluoromethane	U	ND		0.500	5.00	ug/L	1					
Ethylbenzene	U	ND		0.250	1.00	ug/L	1					
Methylene chloride	U	ND		2.00	5.00	ug/L	1					
Tetrachloroethylene	U	ND		0.250	1.00	ug/L	1					
Toluene	U	ND		0.250	1.00	ug/L	1					
Trichloroethylene	U	ND		0.250	1.00	ug/L	1					
Trichlorofluoromethane	U	ND		0.310	5.00	ug/L	1					
Trichlorotrifluoroethane	U	ND		1.00	10.0	ug/L	1					
Vinyl chloride	U	ND		0.500	1.00	ug/L	1					
Xylenes (total)	U	ND		0.250	3.00	ug/L	1					
cis-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
cis-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					
trans-1,2-Dichloroethylene	U	ND		0.300	1.00	ug/L	1					
trans-1,3-Dichloropropylene	U	ND		0.250	1.00	ug/L	1					

### The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	EPA 901.1		
2	EPA 900.0		
3	EPA 906.0 Modified		
4	SW846 8260B		

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	GEL 8260B Method List Liquid	42.1 ug/L	50.0	84	(68%-121%)
Bromofluorobenzene	GEL 8260B Method List Liquid	47.5 ug/L	50.0	95	(80%-120%)
Dibromofluoromethane	GEL 8260B Method List Liquid	44.3 ug/L	50.0	89	(78%-124%)
Toluene-d8	GEL 8260B Method List Liquid	50.0 ug/L	50.0	100	(77%-122%)

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Report Date: August 30, 2007

Page 3 of 3

Client Sample ID: 082207-12  
Sample ID: 192249012

Project: DHEC00105  
Client ID: DHEC002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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A The TIC is a suspected aldol-condensation product  
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.  
BD Results are either below the MDC or tracer recovery is low  
C Analyte has been confirmed by GC/MS analysis  
D Results are reported from a diluted aliquot of the sample  
E Organics--Concentration of the target analyte exceeds the instrument calibration range  
H Analytical holding time was exceeded  
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N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).  
Quantitation is based on nearest internal standard response factor  
N/A RPD or %Recovery limits do not apply.  
ND Analyte concentration is not detected above the detection limit  
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%  
R Sample results are rejected  
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.  
UI Gamma Spectroscopy--Uncertain identification  
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier  
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^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.  
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